## BIBLIOGRAPHY OF POPULATION FORECASTS AND PROJECTIONS FOR HAWAII, 1991

At least 155 separate studies of the future population of either the State of Hawaii or City and County of Honolulu have been published since the mid-1920s, 11 of them in the past four years. This annotated bibliography, the tenth in a series first issued in 1960, contains summary information on both methodology and findings of all such studies released since the previous bibliography in 1987, and also on supplemental reports which expanded on the basic publications. Earlier reports containing projections for 1990 or later dates are moreover cited in tables comparing their major findings. 1/

Although 155 separate basic studies have been described in these bibliographies, the number of publications presenting their findings is far greater, and the number of individual projections described in these reports is even larger. The DBED projections issued in 1984, for example, were described in detail in reference 137a, but a summary report (reference 137b) was released at the same time, and four later publications (references 137c, 137d, 137e, and 137f) contained details or extensions of the basic projections not available in the primary document. The original report, moreover, described 18 illustrative series, the recommended or "most likely" set and 17 others characterized by important (but "less likely") variations on the basic series and its underlying components of population change. Other studies have similarly offered many different projections, based on varying assumptions regarding fertility, mortality, or migration. Such series often differ widely; one report, for example, presented two estimates of the resident population of Oahu in 1995, a "low" figure of 924,000 and a "high" of 1,400,000--more than half again as great.

<sup>1/</sup> The earlier bibliographies were:

Hawaii State Planning Office, Annotated Bibliography of Population Projections for Hawaii (Staff Research Memorandum 25, March 29, 1960); Hawaii State Department of Planning and Economic Development, Annotated Bibliography of Population Projections Issued Since 1959 (Research Memorandum 5, April 27, 1964);

Hawaii State Department of Planning and Economic Development, State of Hawaii General Plan Revision Program, Part 4, PopulationÿProjections (1967), pp. 73-76 and 81-84; City and County of Honolulu, Department of Public Works, WaterÿQuality Program for Oahu With Special Emphasis on Waste Disposal, Final Report, Work Area 1, Demographic and Economic Studies (June 1971), Appendix 3;

Honolulu Redevelopment Agency, "Population Forecasts for Hawaii, 1972-2070," Redevelopment and Housing Research, No. 32, July 1972, pp. 12-22;

Hawaii State Department of Planning and Economic Development, TheÿPopulation of Hawaii, 1958-2025, Recent Trends and Projections (Statistical Report 114, May 5,1976), Appendix B.

Hawaii State Department of Planning and Economic Development,

Bibliography of Population Forecasts and Projections for Hawaii, 1981 (Statistical Report 151, January 15, 1982);

Hawaii State Department of Planning and Economic Development, Hawaii Population and Economic Projection and Simulation Model, UpdatedÿState and County Forecasts (July 1984), Appendix D, pp. 91-96; and

Hawaii State Department of Planning and Economic Development, Bibliography of Population Forecasts and Projections for Hawaii, 1987 (Statistical Report 199, May 15, 1987).

Comparison of competing population forecasts is complicated by the lack of uniformity in definitions. Some refer to resident population, while others deal with de facto population—a concept that includes visitors present in an area but excludes residents temporarily away on vacation or business. Whether resident or de facto, the total is further modified by different treatment according to military status. Some studies cover the entire population, others exclude all members of the armed forces, and a few even omit the civilian dependents of armed forces. The most useful analyses cover all groups, but show separate statistical totals for each. Among the 11 Hawaii studies published since 1987, all 11 reported total resident population, one included a breakdown by military status, and two included matching projections of de facto population. 2/

Geographic coverage is similarly variable. In the same 11 Hawaii studies, five reported only State totals, one referred only to the City and County of Honolulu (or the Honolulu SMSA or Oahu, all of which are the same thing), and five provided projections at both levels. Four, moreover, disaggregated the State projections by counties although none showed forecasts by census tracts or other island subareas.

Eight of the studies projected totals by age groups.

Forecasting methods differed widely. The most popular, used by six of the 11 studies, typically involved an initial forecast of economic activity (sometimes tied to national projections), projections of employment by sector or industry, a projection of labor force participation rates, and finally a computation of the population implicit in these estimates. This approach assumes that demographic growth is caused by economic activity. The opposite approach, chosen in two of the studies, requires a cohort-component analysis, in which age-specific fertility, mortality, and migration rates are separately projected. Three did not report their methodology.

Not surprisingly, the 11 studies produced widely divergent results. Projections of the total resident population of the State, for example, ranged from 1,174,000 to 1,368,000 for 2000, and from 1,250,000 to 1,608,000 for 2010. Projections of the total resident population of Oahu--actually 806,000 in 1985--ranged from 827,000 to 969,000 for 2000, and from 841,000 to 1,046,000 for 2010.

Comparing earlier projections for 1990 with the recent

released census counts for that year might be expected to yield insight into the relative accuracy of various methods, but such simple comparisons produce surprisingly mixed results, and in any event can be seriously misleading unless supported by an in-depth, systematic analysis of forecasting errors. Most of the studies cited in this bibliography must be viewed as unique, and thus not subject to easy generalizations.

2/ Population estimates and projections published for Hawaii prior to World War II generally referred to total resident population. Rapid shifts in the military population after the onset of war and the lack of good data on this category led to the increasing use of civilian population as the unit of measurement in succeeding years. A 1953 study by the U.S. Office of Business Economics concluded that the most reasonable base for computing per capita personal income was total resident population less Navy personnel aboard ship, and subsequent reports by this agency (now called the Bureau of Economic Analysis) followed this definition until 1976. The distinction between resident and de facto population was first made for Hawaii by the Honolulu Redevelopment Agency, which published its estimates for both types of population initially in Redevelopment and Housing Research, No.ÿ3, January 1956, p. 44. The de facto concept was eventually adopted by both the State Department of Health and State Department of Planning and Economic Development (now DBED) for use in official State estimates, along with the traditional resident basis.

Notwithstanding past misadventures by various authorities, the State forecasts in current official use are tracking actual developments with considerable success. The DPED's M-K series (reference 149), recommended since its publication in 1988 for official planning purposes, differed from the 1990 enumerated population by only 2.6 percent for the State as a whole, 3.1 percent for Oahu, and 1.5 percent for the Neighbor Islands. The corresponding de facto projections deviated by 1.7 percent at the statewide level, 2.2 percent for Oahu, and 0.3 percent for the Neighbor Islands.

The following bibliography cites the major population forecasts issued for Hawaii since 1987. It updates the nine bibliographies of such studies issued previously. The updated listing is confined to published studies reporting projections for 1995 or later years, for either the State as a whole or the City and County of Honolulu. It omits unpublished studies, projections limited to single districts or islands, and the numerous casual forecasts appearing in speeches or promotional literature and sometimes reported in newspaper accounts. The listing is numbered to follow the citations in previous bibliographies. Besides the basic studies mentioned in the preceding paragraphs, it includes several major reports which repeated earlier efforts but with additional details.

145. Woods & Poole Economics, Inc., 1987 Alaska and Hawaii StateÿProfile (Washington, D.C., May 1987). Part of a nationwide study covering 183 economic areas, all 50 States, and their respective counties. Projections are shown to 2010, calculated from "export-base" (agriculture, mining, manufacturing, and federal government) models. The projections cover population by detailed age, population by race (white, black, other), households and average household size, employment and earnings by industry, and personal income by component. The following population totals (in thousands) are shown for Hawaii:

Year	State	Hawaii	Honolulu	Kauai	Maui
1987	1.078.27	114.38	823.49	47.19	93.22
1990	,		827.91		104.24
2000	1,173.64	138.81	827.23	59.80	148.29
2010	1,250.18	156.58	841.01	66.69	185.90

- 146a. Hawaii State Department of Business and Economic Development, Revised Long-Range Economic and Population Projections to 2010, State ofÿHawaii (Series M-K), Preliminary Report (January 1988). A preliminary version of the report cited below as reference 149. Statewide resident population totals presented here are as follows: 1985, 1,051,500; 1990, 1,142,500; 2000, 1,294,200; 2010, 1,435,100.
- 146b. Bank of Hawaii, "Long-Range Projections for Hawaii," BusinessÿTrends, March-April 1988, pp. 5-6. A discussion of the projections in 146a.
- 147a. U.S. Bureau of the Census, "Three States Likely to Provide Half of U.S. Population Growth into the Next Century, Census Bureau Projects [sic] Show," Release CB88-48 (April 1, 1988). A summary of the findings of 147b.
- 147b. U.S. Bureau of the Census, "Projections of the Population of States, by Age, Sex, and Race: 1988 to 2010," Current Population Reports, Population Estimates and Projections, Series P-25, No. 1017 (October 1988). Projections based on the cohort-component method, using assumptions on future in- and out-migration flows consistent with recent experience. Resident population totals reported for Hawaii are as follows: 1986, 1,062,000; 1990, 1,141,000; 2000, 1,345,000; 2010, 1,559,000.
- 148. NPA Data Services, Washington, D.C., 1986 Regional Economic Projections Series, Vol. III, as cited in American Demographics, July 1988, p. 56. Population projections by age group for the Honolulu MSA (Oahu), 1985-2010, "based on the cohort-component method to predict natural increase and NPA's economic model to predict migration." All-age totals shown are: 1985, 813,400; 1990, 848,690; 2000, 929,590; 2010, 1,000,790.
- 149. Hawaii State Department of Business and Economic Development, Population and Economic Projections for the State of Hawaii to  $2010\ddot{y}(Series\ M-K)$  (November 1988). Presents projections of resident and de facto population, civilian jobs by industry, personal income, per capita income, and visitors, for

the State and each county, based on the State input-output model and assumptions regarding future fertility, migration, and growth in tourism, at five-year intervals from 1985 to 2010. The resident population is also disaggregated by age and sex at the State (but not county) level. The resident and de facto population projections (in thousands) are as follows:

				Other co	ounties	
Type of population and year	State total	City and County of Honolulu	Total	Hawaii	Kauai	 Maui1/
Resident population:						
1990	1,137.2	861.6	275.6	124.6	54.1	96.8
1995	1,225.2	910.4	314.9	142.5	61.1	111.2
2000	1,285.1	932.8	352.4	160.4	68.2	123.9
2005	1,350.8	961.1	389.7	180.8	75.5	133.4
2010	1,435.5	999.5	435.9	206.1	84.6	145.2
De facto population:						
1990	1,269.1	928.0	341.2	134.4	70.1	136.7
1995	1,382.3	983.1	399.2	158.6	81.7	159.0
2000	1,468.6	1,012.5	456.1	183.0	94.0	179.1
2005	1,560.3	1,048.5	511.9	211.0	104.8	196.0
2010	1,674.2	1,094.7	579.5	243.0	120.3	216.2

150. Woods & Poole Economics, Inc., 1989 Alaska and Hawaii StateÿProfile (Washington, D.C., 1989). Contains State and County projections of resident population by five-year age groups, employment and earnings by industry, personal income by component, households, and retail sales by type of establishment, 1989-2010. Starts with national projections based on a 150-equation macroeconomic model. For 183 economic areas, employment projections are based on an "export-base" approach, with the results constrained to the national forecast. The procedure is then repeated for States and finally for counties. The employment projections are used to project earnings, which in turn become the basis for projections of population and households. The resident population totals thus derived are as follows:

Year	State	Honolulu	Hawaii	Kauai	Maui
1989	1,107.67	839.10	120.05	50.60	97.92
1990		845.74	122.24	52.22	102.37
1995	1,190.48	872.86	132.15	60.19	125.28
2000	1,249.46	893.08	140.24	67.62	148.53
2005	1,386.79	955.97	156.24	81.37	193.20

151. DRI/McGraw-Hill, "Hawaii Still a Favored Playground," RegionalÿInformation Service, Western Region, Summer 1989 (Lexington, Mass.: Standard & Poor's Corp., 1989), pp. 48-50. Projections of population, labor force, employment, personal income, consumer price index, median home price, and housing starts, 1988-2000. Methodology and assumptions not specified. Population projections (in millions) for selected years are as follows: 1987 and 1990, 1.1; 1995, 1.2; 2000, 1.3.

- 152. Bank of Hawaii, "A Forecast Poll on Hawaii's Economy in 1999," Business Trends, November-December 1989, pp. 3-4. Reports two sets of economic and demographic projections for Hawaii -- resident population, gross state product, total and per capita personal income, Honolulu CPI, visitor arrivals and expenditures, average room rates, manufacturing receipts, agricultural receipts, defense expenditures, and value of construction -- to 1999. The first set consists of forecasts made by the Bank of Hawaii and provided by David Ramsour to the Bank's 1989 economic outlook conference; the second is the average of forecasts made by 160 members of Hawaii's business community polled by the Bank. The Bank's 1999 Statewide resident population projection was 1,300,000, compared with their 1989 estimate of 1,114,673. The average group forecast for 1999 was 1,345,517.
- 153. U.S. Bureau of the Census, "Projections of the Population of States by Age, Sex, and Race: 1989 to 2010," Current Population Reports, "Population Estimates and Projections, Series P-25, No. 1053 (January 1990). An updated and expanded version of the projections in 147b, this time presenting four alternative series based on different assumptions regarding future internal migration. The Statewide resident totals thus calculated for Hawaii are as follows:

	Series	1988	1990	1995	2000	2005	2010
Series	A	1,098	1,133	1,253	1,362	1,472	1,590
Series	В	1,098	1,134	1,256	1,373	1,490	1,615
Series	C	1,098	1,132	1,253	1,368	1,484	1,608
Series	D 1/	1,098	1,111	1,180	1,244	1,306	1,369

## 1/ Zero net migration assumption.

154a. U.S. Bureau of Economic Analysis, "Regional and State Projections of Income, Employment, and Population to the Year 2000," Survey of Current Business, May 1990, pp.33-54. These projections were prepared by BEA, first for the nation as a whole and then by States, "based on historical economic relationships within each State between basic industries -- those that mainly serve national markets -- and service industries -- those that mainly serve local markets." These projections, made to 2010, were then extended to 2020 and 2040, based on simplified techniques and assumptions. Population projections for Hawaii were: 1988, 1,098,000; 1995, 1,226,000; 2000, 1,293,000.

154b. U.S. Bureau of Economic Analysis, BEA Regional Projections to 2040, 3 vol. Vol. 1, States (June 1990), Hawaii on pp. 124-125; Vol. 2, Metropolitan Statistical Areas (October 1990), Honolulu on p. 146; Vol. 3, BEA Economic Areas (October 1990), area 183, Hawaii, on p. 184. Detailed descriptions of series summarized in 154a. Presents projections to 2040, based on 1973-88 trends, of personal income and employment by industry and population by broad age groups, for the State and (without age breakdowns) for the Honolulu MSA. The population projections are as follows:

		Age			Island		
Year (July 1)	State total	Under 18 years	18 to 64 years	65 years and over	Oahu	Other islands	
1988	1,098	287	697	114	838	260	
1995	1,226	312	768	146	925	301	
2000	1,293	315	817	161	969	324	
2005	1,354	312	866	176	1,009	345	
2010	1,411	309	904	198	1,046	365	
2020	1,493	315	912	266	1,102	391	
2040	1,565	310	900	356	1,151	414	

154c. U.S. Bureau of Economic Analysis, "Metropolitan Statistical Area Projections of Income, Employment, and Population to the Year 2000," Survey of Current Business, October 1990, pp. 26-32. MSA projections consistent with the State-level projections in 154a, "based on the historical record of each substate area's share of the State totals." The Honolulu MSA (Oahu) population projections are: 1988, 838,000; 1995, 925,000; 2000, 969,000.

155. Hawaii State Department of Business, Economic Development & Tourism, "DBED Economic Forecast, December 1990," preprint of tables planned for publication in Quarterly Statistical & Economic Report, 4th quarter 1990. Table 2 contains revisions in M-K Statewide resident population totals to 1995 (see reference 149): 1,132,600 in 1990 and 1,222,900 in 1995.

Table 1.-- POPULATION PROJECTIONS FOR THE STATE, OAHU, AND NEIGHBOR ISLANDS: PUBLISHED BEFORE 1981: 1990 TO 2010

[In thousands. Unless otherwise specified, data refer to total resident population, including military personnel and dependents]

	1990				
Geographic area, source and date of publication 1/	 Enumerated	Projected	1995	2000	2010
STATE OF HAWAII					
12. Health Dept., 1957 2/ 32. Census Bureau, 1960:	1,053	664	672	678	
Lowest	1,108			1,155	
Highest	1,108			1,514	
33f.Child/DPR, 1961 2/	1,053	1,242		1,490	
38. Tudor, 1961: 2/					
Low	1,053	900		1,000	
High	1,053	1,300		1,500	
46. Army Engineers, 1963 2/	1,053			1,261	
50. USORRRC, 1962	1,108			1,375	
59. DPED, 1965:					
Low	1,108	1,023			
Medium	1,108	1,159			
High	1,108	1,282			

61.	DPED, 1965:					
	Low	1,108	931			
	Medium	1,108	1,000			
	High	1,108	1,304			
70.	Army Engineers, 1967 2/	1,053	-,			1,261
	DPED, 1967 (Series C)	1,108	1,352			
	OBE, 1968	1,108	1,038		1,185	
	DPED, 1969 2/		1,038	• • •	· ·	• • •
		1,053	1,212	• • •		• • •
84.	EWPI, 1971: 3/	000	505		000	
	Lowest	993	787	• • •	832	• • •
	Highest	993	971		1,155	
	DPED, 1972 (medium)	1,108	1,049	1,128	1,209	
86.	Census Bureau, 1972:					
	Lowest	1,108	933			
	Highest	1,108	1,245			
90.	BEA, 1972	1,108	1,030		1,179	
91.	USDOT, 1972-73	1,108	946			
	Pickard, 1972:					
	Series B	1,108	1,171		1,425	
	Series E	1,108	1,045		1,182	
94	Berry, 1972:	1,100	1,013	• • •	1,102	•••
74.	Series B	1,108	1,131		1,333	
	Series E		· · · · · · · · · · · · · · · · · · ·	• • •		• • •
٥٢		1,108	1,022	1 007	1,120	• • •
	Renaud, 1973 3/	993	936	1,007	1,078	• • •
	BEA, 1974	1,108	979	• • •	1,085	• • •
101.	Gardner/Nordyke, 1974: 3/					
	Lowest (exc. ZPG)	993	799		846	• • •
	Highest	993	1,000		1,196	
	DPED, 1975-76 (E-2)	1,108	1,132	1,239	1,349	
113.	BEA, 1977	1,108	1,154		1,288	
115.	DPED, 1977:					
	MHG	1,108	1,117			
	Modified E-2	1,108	1,156			
116.	DPED, 1977 (II-E)	1,108	1,132	1,202	1,294	
	DPED, 1978-79 (II-F):					
	Resident	1,108	1,092	1,164	1,226	
	De facto	1,248	1,230	1,325	1,395	
118	Health Dept., 1978	1,108	-,250		1,350	
	Census Bureau,	1,100	•••	• • •	1,550	• • •
117.	1978-79 (II-B)	1,108	1,086	1,145	1,193	
101	Pham/Renaud, 1979 3/	993	924			• • •
				• • •	1,083	• • •
123.	BEA, 1980	1,108	1,079	• • •	1,229	• • •
	0.7.177					
	OAHU					
1	DHG 1050	026			F70	
	BWS, 1952	836			570	• • •
	Health Dept., 1957 2/	781	566	575	581	• • •
	.Child/DPR, 1961 2/	781	981		1,178	• • •
38.	Tudor, 1961: 2/					
	Low	781	700		800	• • •
	High	781	1,000		1,200	
	Army Engineers, 1963 2/	781				1,016
	DPED, 1967 (Series C)	836	1,174			
81.	BWS, 1971 4/	853	959	1,064	1,162	
	Hon. DPW, 1971:					
	Civilian resident	781	905		1,092	
	De facto	908	1,043		1,248	

	Hon. Planning Dept., 1971:					
03.	Resident: Low	836	955	1,101	1,266	
						• • •
	High	836	1,329	1,664		• • •
	De facto: Low	908	1,020	1,173		• • •
0.5	High	908	859	924	990	• • •
	DPED, 1972	836	859	924	990	
93.	Pickard, 1972:					
	Series B	836	1,035		1,290	
	Series E	836	924		1,071	
	Renaud, 1975 3/	722			917	
	Plasch, 1973	836	1,045	1,143		
99.	Hon. Planning Dept., 1973:					
	Low	836		924		
	High	836		1,400		
100.	BEA, 1974	836	842		952	
105.	DPED, 1975-76 (E-2)	836	891	965	1,039	
	Hon. DGP, 1977:				•	
	Case A' (lowest)	836	762	768		
	Case C (highest)	836	1,003	1,064		
115	DPED, 1977:		2,000	_,		• • •
<b></b> .	MHG-DNI	836	873			
	MHG-DO	836	914			
117	DPED, 1978-79 (II-F):	030	714	• • •	• • •	• • •
<b>TT</b> / •	Resident	836	845	886	917	
						• • •
110	De facto	908	918	966	996	• • •
118.	Health Dept., 1978	836	• • •	• • •	1,050	• • •
	NEIGHBOR ISLANDS					
1 2	Health Dept., 1957 2/	272	98	0.7		
	nearth Dept., 1937 2/				0.7	
ורר	abild/ppp 1061 2/			97	97 212	
	.Child/DPR, 1961 2/	272	261	•••	97 312	• • •
	Tudor, 1961: 2/	272	261		312	• • •
	Tudor, 1961: 2/ Low	272 272	261 200		312 200	
38.	Tudor, 1961: 2/ Low	272 272 272	261		312 200 300	
38. 46.	Tudor, 1961: 2/ Low	272 272 272 272	261 200 300		312 200 300	
38. 46. 85.	Tudor, 1961: 2/ Low	272 272 272	261 200 300		312 200 300	
38. 46. 85.	Tudor, 1961: 2/    Low	272 272 272 272 272	261 200 300		312 200 300	
38. 46. 85.	Tudor, 1961: 2/ Low	272 272 272 272 272 272	261 200 300		312 200 300	
38. 46. 85. 93.	Tudor, 1961: 2/    Low	272 272 272 272 272	261 200 300  190		312 200 300  219	
38. 46. 85. 93.	Tudor, 1961: 2/    Low	272 272 272 272 272 272	261 200 300  190		312 200 300  219	 245
38. 46. 85. 93.	Tudor, 1961: 2/    Low	272 272 272 272 272 272 272	261 200 300  190 136 121	204	312 200 300  219 135 112	 245 
38. 46. 85. 93.	Tudor, 1961: 2/    Low	272 272 272 272 272 272 272 271	261 200 300  190 136 121	204	312 200 300  219 135 112 161	 245 
38. 46. 85. 93. 95. 100.	Tudor, 1961: 2/    Low	272 272 272 272 272 272 272 271 271	261 200 300  190 136 121 	204	312 200 300  219 135 112 161 133	 245 
38. 46. 85. 93. 95. 100.	Tudor, 1961: 2/    Low	272 272 272 272 272 272 272 271 271	261 200 300  190 136 121 	204	312 200 300  219 135 112 161 133	 245 
38. 46. 85. 93. 95. 100.	Tudor, 1961: 2/    Low	272 272 272 272 272 272 272 271 271 272	261 200 300 190 136 121 137 241	204	312 200 300  219 135 112 161 133	 245 
38. 46. 85. 93. 95. 100. 105.	Tudor, 1961: 2/    Low	272 272 272 272 272 272 271 271 272 272	261 200 300 190 136 121 137 241	 204  274	312 200 300  219 135 112 161 133 310	 245 
38. 46. 85. 93. 95. 100. 105.	Tudor, 1961: 2/    Low	272 272 272 272 272 272 271 271 272 272	261 200 300 190 136 121 137 241 203 244	 204  274	312 200 300  219 135 112 161 133 310	 245 
38. 46. 85. 93. 95. 100. 105.	Tudor, 1961: 2/    Low	272 272 272 272 272 272 271 271 272 272	261 200 300 190 136 121 137 241 203 244	 204  274	312 200 300  219 135 112 161 133 310 	 245 
38. 46. 85. 93.  95. 100. 105. 117.	Tudor, 1961: 2/    Low	272 272 272 272 272 272 271 271 272 272	261 200 300 190 136 121 137 241 203 244	 204  274	312 200 300  219 135 112 161 133 310	 245 

<sup>1/</sup> Source references are listed in this bibliography and earlier ones cited in the narrative.

<sup>2/</sup> Excludes armed forces.

<sup>3/</sup> Excludes military personnel and their dependents.4/ De facto population, excluding armed forces.

## Table 2.-- POPULATION PROJECTIONS FOR THE STATE, OAHU, AND NEIGHBOR ISLANDS: PUBLISHED SINCE 1981: 1990 TO 2035

[In thousands. Unless otherwise specified, data refer to total resident population]

	1990				
Geographic area, sourceand date of publication 1/ Enumerated	Projected	1995	2000	2005	2010
STATE OF HAWAII					
123a.BEA, 1981 2/ 1,108	1,079	1,152	1,229		1,350
125. BEA, 1981 rev 1,108	1,119		1,269		
130. NPA, 1982	1,017		1,165		
132. JCUS, MIT, 1983 1,108			1,399		
133. Bureau of Census,					
1983	1,138		1,278		
135. NPA, 1983 1,108	1,104		1,300		
137a.DPED, 1984 (M-F):					
Resident 1,108	1,138	1,211	1,268	1,310	
De facto 1,248	1,277	1,373	1,447	1,501	
138a.BEA, 1985 2/ 1,108	1,106	1,156	1,207	1,258	
139a. Woods & Poole, 1985 1,108	1,109	1,226		1,548	
140. NPA, 1985 1,108			1,117		
141. PBN, 1985 1,108	1,190				
145. Woods & Poole, 1987 1,108	1,100	1,132	1,174		1,250
146. DBED, Jan. 1988 (M-K, prel.):					
Resident 1,108	1,142	1,229	1,294		1,435
De facto 1,248	1,284	1,397	1,489		1,687
147. Census Bureau, 1988 1,108	1,141	1,243	1,345	1,449	1,559
149. DBED, Nov. 1988 (M-K, rev.):					
Resident 1,108	1,137	1,225	1,285		1,436
De facto 1,248	1,269	1,382	1,469		1,674
150. Woods & Poole, 1989 1,108	1,123	1,190	•		1,387
151 DRI/McGraw, 1989 1,108	1,100	1,200	1,300		• • •
152. Bank of Hawaii, 1989 1,108	• • •		3/1,300	• • •	• • •
153. Census Bureau,					
1990 (Ser. C)	1,132	1,253	1,368		1,608
154. BEA, 1990 2/ 1,108		1,226	1,293		1,411
155. DBED, 1990 1,108	1,133	1,223	• • •	• • •	• • •
OAHU					
123a.BEA, 1981: 2/					
"No change" 836	861		980		
"Low change" 836	851		967		
"Moderate change" 836	846		957		
126. BWS, 1981:					
Resident 836	845	886	947		
De facto 908 134. ODC/DGP, 1983:	909	958	1,027	• • •	• • •
Low			872		
25	• • •		0,2		

High	836 836	• • • •		963 1,000+		
Resident	836	859	897	926	954	
De facto	908	941	985	1,018 1		• • •
138b.BEA, 1985 2/	836	851	883	916	951	• • •
139a.Woods & Poole, 1985	836	860	943	1	•	• • •
141. PBN, 1985	836	900	• • •		• • •	• • •
142. Reid, 1985	836	• • •	• • •	901	• • •	
145. Woods & Poole, 1987	836	828	826	827		841
146. DBED, Jan. 1988 (M-K, prel	.):					
Resident	836	867	916	945	975	1,013
De facto	908	939	994	1,030 1	,068	1,119
148. NPA, 1988	836	849		930		1,001
149. DBED, Nov. 1988 (M-K, rev.	):					
Resident	836	862	910	933	961	1,000
De facto	908	928	983	1,012 1	,048	1,095
150. Woods & Poole, 1989	836	846	873	893		956
154. BEA, 1990 2/	836		925	1,046	969	1,009
NEIGHBOR ISLANDS						
NEIGHBOR ISLANDS						
123a.BEA, 1981: 2/						
"No change"	272	218		249		
"Low change"	272	228		262		
"Moderate change"	272	233		273		
137a.DPED, 1984 (M-F):						
Resident	272	279	310	342	356	
De facto	340	336	388	429	449	
138b.BEA, 1985 2/	272	255	273	291	308	
139a.Woods & Poole, 1985	272	250	283		350	
141. PBN, 1985	272	290				
145. Woods & Poole, 1987	272	272	306	346		409
146. DBED, Jan. 1988 (M-K, prel	.):					
Resident	272	275	313	349	384	422
De facto	340	345	403	459	513	568
149. DBED, Nov. 1988 (M-K, rev.		313	105	133	313	300
Resident	272	276	315	352	390	436
De facto	340	341	399	456	512	580
150. Woods & Poole, 1989	272	277	318	356		431
154. BEA, 1990 2/	272		301	324	345	365
IJT. DEA, 1990 4/	414	• • •	201	34 <b>4</b>	273	202

<sup>1/</sup> Source references are listed in this bibliography and the preceding one (cited in the narrative).

<sup>2/</sup> Also includes projections for years beyond 2010.

<sup>3/ 1999.</sup>